

Improved Efficiency for Global 3D Printing Leader

Customer: Materialise

Allied Telesis advanced network technology and long partnership with 3D printing company Materialise reaps results.

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Johan Duchateau

*IT Network Specialist
at Materialise.*



materialise

Industry: Manufacturing

Location: Belgium

Website: materialise.com

Headquartered in Belgium and with branches worldwide, Materialise was founded in 1990. Since that time the company has created a wide range of software solutions and 3D printing services, offering open and flexible platforms which enable customers in many industries to build innovative 3D printing applications.

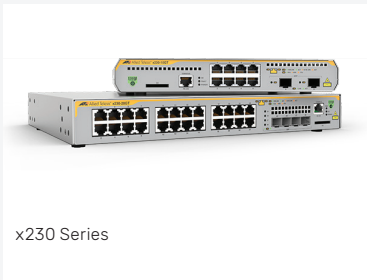
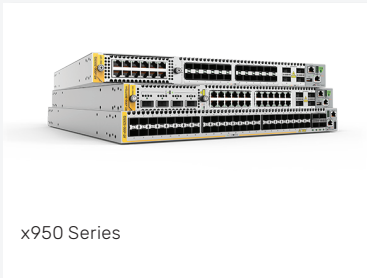
Materialise has combined the largest group of software developers in the industry with one of the largest 3D printing facilities in the world. Beginning with one main premises in Belgium, the company now has four, which all need high-speed interconnectivity. 10 offices worldwide have become 25, and 500 employees have become 2500+.

The network at the Belgian headquarters was built over time using products from numerous vendors, with varying configuration needs and user interfaces. This had led to issues with network management and troubleshooting—Materialise needed a new network across the four premises that make up the Belgium headquarters, including offices, print production, and distribution.

Why Allied Telesis?

Key objectives for the redesign were high-availability, modularity, flexibility and security. The network had to encompass not just the Belgian headquarters premises, but also connectivity to 3D printers worldwide using specialized software applications, as well as data exchange between the company's offices. This was in addition to other online resources, applications like video conferencing and cloud-based collaboration tools, and connected IoT devices—all converged on a single network solution to enable smooth business operation.

Related products



Materialise has a unique and long-lasting relationship with Allied Telesis. They've used Allied Telesis products in their various branches and premises for around 15 years, and have first-hand assurance of the products' reliability and durability. But the choice of network vendor was multi-faceted. Other major selling points included the Allied Telesis AlliedWare™ Plus Operating System, with its industry standard CLI providing an interface familiar to Materialise's network engineers, saving time on training and troubleshooting.

Allied Telesis equipment is available world-wide and locally in each country—a big plus. "The availability of Allied Telesis products around the globe meant that all of our offices could have local delivery," says Johan Duchateau, IT Network Specialist at Materialise.

Uniformity was a key factor as well. Using the same brand and vendor simplifies management, troubleshooting and configuration for Materialise worldwide. Allied Telesis' high quality-to-price ratio and strong performance history sealed the deal.

An Advanced Technology Upgrade

Allied Telesis x950 Series switches form the new network core. These powerful switches are stacked with Allied Telesis Virtual Chassis Stacking (VCStack™), to create a resilient solution that meets the requirements for high availability and modularity. All four buildings in the company headquarters are interconnected with multiple 10 Gigabit fibers connected in Link Aggregation Groups (LAGs), providing high performance and redundancy. The combination of VCStack and LAGs provides a network core with no single point of failure, as well as automated recovery from any link or device failure, to ensure a truly non-stop network.

The expandable and modular x950 Series provides the flexibility and reliability that Materialise needs, and is future proof too. Materialise can add additional fiber or Ethernet ports at any time, and easily grow network capacity—the x950 Series can connect at 40 or even 100Gbps.

As well as the core x950 switches, Materialise has around 280 Allied Telesis network switches worldwide, including XS900MX 10 Gigabit switches for distribution, x510, x230 and x210 Series Gigabit Ethernet Switches, and GS900MX Series Gigabit edge switches.

All of the new switches use the AlliedWare Plus OS, with a rich set of high availability and security features. This ensures a consistent user experience right across the network, ensuring reduced administration time and effort. Plus, Materialise now has the ability to choose the most appropriate product for any given time or place—without being constrained by arbitrary compatibility requirements.

Because AlliedWare Plus is standards-based, it assures full interoperability with other major network equipment, so the Allied Telesis switches work seamlessly with the Fortinet firewalls that Materialize use to connect their many global locations. AlliedWare Plus also provides intuitive usability and high reliability for a superior customer experience.

Rounding out the new solution, 802.1x network authentication assures high security as users must provide valid login credentials to gain access. Users are also dynamically assigned to a specific

VLAN to ensure they have the appropriate level of access to online resources and applications.

Streamlined Business Operation

The result is a powerful and high-value new network solution that supports this global business with always-on access to all of their online systems, as well as important customer and printing project data backed up from multiple locations around the world. Allied Telesis technology now enables one of the largest, and leading, 3D printing companies to provide superior service to their customers with innovative printing solutions for many industries, no matter how big or small the job.

“We rarely have any network problems. Because most of our important switches use VCStack, we can easily replace a unit, or add an additional stack member. All firmware, configuration, and licenses are automatically copied onto the new stack member, providing us with simple plug-and-play replacement or network growth,” says Duchateau.

With this solution, Allied Telesis and Materialise have further solidified their working relationship. Says Duchateau, “For many years we have enjoyed excellent communication with the Allied Telesis Benelux team. They helped us to select the right devices and solutions for our needs in the pre-sale phase, and they ensured high-value solutions that are within budget for our situation and forecast.”

“If we’ve ever had any challenges that we couldn’t solve ourselves, they have escalated the issue for us to ensure timely resolution. We couldn’t be happier with Allied Telesis, both in terms of products and services.”

Patrick Van Der Zwet, Channel Manager at Allied Telesis Benelux agrees: “Close working relationships with end users like Materialise are key to truly understanding the needs and wants of our customers,” he says. “Our long-term partnership lets us support Johan and his team by continuously adapting to market developments, which results in a fully secure, reliable and high-performance network for Materialise. This is exactly what we stand for at Allied Telesis.”

About Allied Telesis

For over 30 years, Allied Telesis has been delivering reliable, intelligent connectivity for everything from enterprise organizations to complex, critical infrastructure projects around the globe.

In a world moving toward Smart Cities and the Internet of Things, networks must evolve rapidly to meet new challenges. Allied Telesis smart technologies, such as Allied Telesis Autonomous Management Framework™ (AMF) and Enterprise SDN, ensure that network evolution can keep pace, and deliver efficient and secure solutions for people, organizations, and “things”—both now and into the future.

Allied Telesis is recognized for innovating the way in which services and applications are delivered and managed, resulting in increased value and lower operating costs.

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